INTEGRATED METHOD FOR PERFORMING SCHEDULING, ROUTING AND ACCESS CONTROL IN A COMPUTER NETWORK

ABSTRACT

An integrated highly adaptive method is presented to perform scheduling, routing and access control in a network. The network is made up of a plurality of nodes interconnected by links between at least some of the nodes wherein at least one path interconnects all of the plurality of nodes. The nodes are organized into at least one of a cluster and a clique and the network has a network-wide capacity to send data packets in slots delineating time frames on the network between the nodes on the network defined by the links. The plurality of nodes can be configured to process at least one flow comprising at least a portion of a transmitted and received data packet for which the plurality of nodes must manage to get the data packets to a desired node on the network.